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Environmental Cleanup Office

## DEPARTMENT OF ECOLOGY

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July 2, 1996

Bill Wedlake  
Spokane County Utilities  
1026 W. Broadway  
Spokane, WA 99260

USEPA SF



1439716

Dear Mr. Wedlake:

Re: Colbert Landfill\Draft MFS Groundwater Monitoring Plan,  
May 23, 1966\Ecology Review\Preliminary Comment

Ecology has reviewed the plan and encloses preliminary comment with this letter. We find the plan to be well written and organized, and a very good attempt to incorporate the groundwater monitoring requirements of WAC 173-304 into the ongoing groundwater remediation. Specific comments follow:

**Lower Aquifer Monitoring**

In a general sense, the existing pump and treat system has established hydraulic control over groundwater in the lower aquifer that leaves the landfill. Also, it is reasonable to infer that when the pumps are turned off, or scaled back, groundwater flow in the lower aquifer, in the vicinity of the landfill, will change direction.

Given the above, it is not economically efficient to install new downgradient and upgradient (background) monitoring wells to meet MFS requirements at this time. The prudent course of action for meeting downgradient requirements is to monitor the influent to the treatment plant. The upgradient (background) requirements can be met by monitoring groundwater quality in the background wells that were designated in the Remedial Investigation and subsequent engineering studies. Trend analysis of the influent monitoring and background monitoring can be used to meet the MFS requirements for a statistical comparison of downgradient and upgradient (background) water quality. The trend analysis need not include Volatile Organic Compounds (VOC) as they are being monitored and remediated.

When pumping is significantly altered (i.e., a decrease or increase of 20 %) the MFS monitoring will be re evaluated in light of the change in groundwater flow. The reevaluation may lead to: 1) MFS monitoring in addition existing wells, 2) MFS monitoring in new wells, or 3) cessation of some or all of MFS monitoring.

Action items for lower aquifer monitoring include selection of the background wells, identifying the sampling procedures for sampling the influent to the treatment plant, and identifying the trend analysis techniques used to compare upgradient and downgradient water quality.

### Upper Aquifer Monitoring

The pump and treat system in the upper aquifer does not establish hydraulic control in the vicinity of the landfill. Also, cessation of the pump and treat system will have no effect on the groundwater flow in the vicinity of the landfill.

Given the above, it is prudent to implement a long term groundwater monitoring system that will meet MFS requirements. Although the County has proposed such a system utilizing both existing wells and new wells, we believe better control on the groundwater flow direction in the vicinity of the landfill is needed before selecting monitoring locations.

We strongly suggest the County collect one or more rounds of groundwater levels in all upper aquifer monitoring wells in the vicinity of the landfill and use the data to compile a groundwater contour map(s). With the map(s) the County can be in a position to better propose groundwater monitoring locations.

VOC monitoring will need to be addressed and may take into account current VOC monitoring and remediation. However, some of the proposed monitoring wells have not been sampled for VOC. The historical record for sampling VOC in the MFS monitoring area is much less than the record elsewhere in the remedial area and the focus of VOC remediation (i.e., extraction wells) is over a mile and a half south of the landfill.

Action items for upper aquifer monitoring include compiling groundwater contour map(s) for the upper aquifer in the vicinity of the landfill, selecting the upgradient and downgradient (background) monitoring wells, addressing VOC monitoring, and identifying the statistical methodology for comparing downgradient and upgradient water quality.

Thank you for submitting the proposed plan. After your review of our comments, please plan to discuss the action items in mid-July. If you have any questions regarding this letter please contact me at (360) 407-7239.

Sincerely,



Mike Kuntz

MK:gj

cc: Steve Holderby, Spokane County Health District  
✓ Neil Thompson, EPA, Region X